

DEPARTMENT OF COMMERCE  
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
OFFICE OF STANDARDS SERVICES

**PRODUCT STANDARD PS63-75**

**LATEX FOAM MATTRESSES FOR HOSPITALS**

Voluntary Product Standard PS63-75, Latex Foam Mattresses for Hospitals, was withdrawn by the Department of Commerce in 1983. The American National Standards Institute (ANSI) Standard Z255.1-75 (PS63-75), same title, was withdrawn on March 31, 1989.

The sponsor of this product standard was the Rubber Manufacturers Association (RMA).

For additional information and technical assistance, contact:

**Rubber Manufacturers Association (RMA)**

**1400 K Street, NW, Suite 900**

**Washington, DC 20005**

**Telephone: (202) 682-4800**

**Fax: (202) 682-4854**

**International Market Research (IMR) Reports**

IMR reports are original studies of growth export markets for selected U.S. industries. They are prepared on the spot, in the country of research, by market consultants under contract to the U.S. Department of Commerce or by the U.S. Foreign Commercial Service. The reports reflect the opinions and view of the surveyed country's end users, importers, agents, distributors and government officials. Fees for such reports are between \$50 and \$100, depending on length of the report.

Stephen B. Strauss,

Deputy Assistant Secretary for Trade Information and Analysis.

[FR Doc. 83-1565 Filed 1-19-83; 8:45 am.]

BILLING CODE 3510-25-M

**National Bureau of Standards****Status Report on Voluntary Product Standards**

**AGENCY:** National Bureau of Standards, Commerce.

**ACTION:** Development, maintenance, and withdrawal of certain voluntary standards.

**SUPPLEMENTARY INFORMATION:** On August 30, 1982, the Department of Commerce (Department) announced in the Federal Register (47 FR 38171) the status of 26 standards classified as voluntary standards. The announcement was made in accordance with the revised "Procedures for the Development of Voluntary Product Standards" (15 CFR Part 10).

The August 30, 1982, notice specified the retention of specific standards for fixed periods of time. The updated status of all existing voluntary standards is indicated below.

The following Voluntary Product Standards will continue to be maintained by the Department:

**Standard and Proponent Organization**

PS 1-74 "Construction and Industrial Plywood", American Plywood Association

PS 20-70 "American Softwood Lumber Standard", American Lumber Standards Committee

PS 73-77 "Carbonated Soft Drink Bottles", Glass Packaging Institute

The Department has agreed to sponsor the development of a Voluntary Product Standard for the production of carbonated soft drinks in glass bottles, which was requested by the National Soft Drink Association. It has been determined that this standards project meets the six requirements for

Department sponsorship stated in § 10.0(b) of the mentioned Procedures.

The following standards will be retained by the Department until January 20, 1984, to permit the orderly transfer of sponsorship of such standards from the Department to the identified organizations.

PS 56-73 "Structural Glued Laminated Timber", American Institute of Timber Construction

PS 67-76 "Marking of Gold Filled and Rolled Gold Plate Articles Other Than Watchcases", Jewelers Vigilance Committee

PS 68-76 "Marking of Articles Made of Silver in Combination with Gold", Jewelers Vigilance Committee

PS 69-76 "Marking of Articles Made Wholly or in Part of Platinum" Jewelers Vigilance Committee

PS 70-76 "Marking of Articles Made of Karat Gold", Jewelers Vigilance Committee

PS 71-76 "Marking of Jewelry and Novelties of Silver", Jewelers Vigilance Committee

PS 72-76 "Toy Safety", American Society for Testing and Materials

In accordance with § 10.13 of the mentioned Procedures, notice is hereby given of the withdrawal of the following standards. This action is taken in furtherance of the Department's announced intentions as set forth in the August 30, 1982, notice to withdraw these standards. The effective date for the withdrawal of the standards will be March 21, 1983. This withdrawal action terminates the authority to refer to these standards as voluntary standards developed under the Department of Commerce procedures. The organizations listed below have assumed responsibility for the standards.

PS 36-70 "Body Measurements for the Sizing of Boys' Apparel", American Society for Testing and Materials

PS 42-70 "Body Measurements for the Sizing of Women's Patterns and Apparel", American Society for Testing and Materials

PS 45-71 "Body Measurements for the Sizing of Apparel for Young Men (Students)", American Society for Testing and Materials

PS 51-71 "Hardwood and Decorative Plywood", Hardwood Plywood Manufacturers Association

PS 54-72 "Body Measurements for the Sizing of Girls' Apparel", American Society for Testing and Materials

PS 63-75 "Latex Foam Mattresses for Hospitals", American Society for Testing and Materials

PS 66-75 "Safety Requirements for Home Playground Equipment", American Society for Testing and Materials

CS 151-50 "Body Measurements for the Sizing of Apparel for Infants, Babies, Toddlers and Children (for the Knit

Underwear Industry)", American Society for Testing and Materials

**FOR FURTHER INFORMATION CONTACT:**

Karl G. Newell, Jr., Office of Product Standards Policy, National Bureau of Standards, Washington, D.C. 20234, Telephone: (301) 921-2368.

Dated: January 6, 1983.

Ernest Ambler,

Director.

[FR Doc. 83-927 Filed 1-19-83; 8:45 am.]

BILLING CODE 3510-13-M

**Office of the Secretary****President's Private Sector Survey on Cost Control; Open Meeting**

**AGENCY:** Office of the Secretary, Commerce.

**ACTION:** Notice of Public meeting of the Executive Committee of the President's Private Sector Survey on Cost Control.

**SUMMARY:** The President's Private Sector Survey on Cost Control was established by the President pursuant to Executive Order 12369 of June 30, 1982, and extended by Executive Order 12398 of December 31, 1982. The Executive Committee of the Survey is chartered by the Department of Commerce as a public advisory committee in accord with the Federal Advisory Committee Act.

The purpose of the President's Private Sector Survey on Cost Control is to conduct a private sector survey on cost control in the Federal Government and to advise the President, the Secretary of Commerce, and other Executive agency heads with respect to improving management and reducing costs.

**Time and Place**

February 4, 1983 at 11:00 a.m. The meeting will take place at the U.S. Department of Commerce Auditorium, First Floor, Herbert C. Hoover Building, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230.

**Agenda**

(1) Receive a status report on activities of the President's Private Sector Survey.

(2) Establish a Subcommittee of the Executive Committee. The purposes of the Subcommittee are: (i) To review the recommendations submitted, including task force reports and public comments, and (ii) determine which recommendations should be made to the President and Departments and Agencies.

**SUPPLEMENTARY INFORMATION:** To accomplish the President's objective that the survey be funded, to the

DEPARTMENT OF COMMERCE  
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
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PRODUCT STANDARD PS63-75

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## National Bureau of Standards

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Dated: January 6, 1983.

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## Office of the Secretary

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#### Time and Place

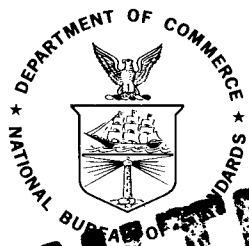
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**SUPPLEMENTARY INFORMATION:** To accomplish the President's objective that the survey be funded, to the

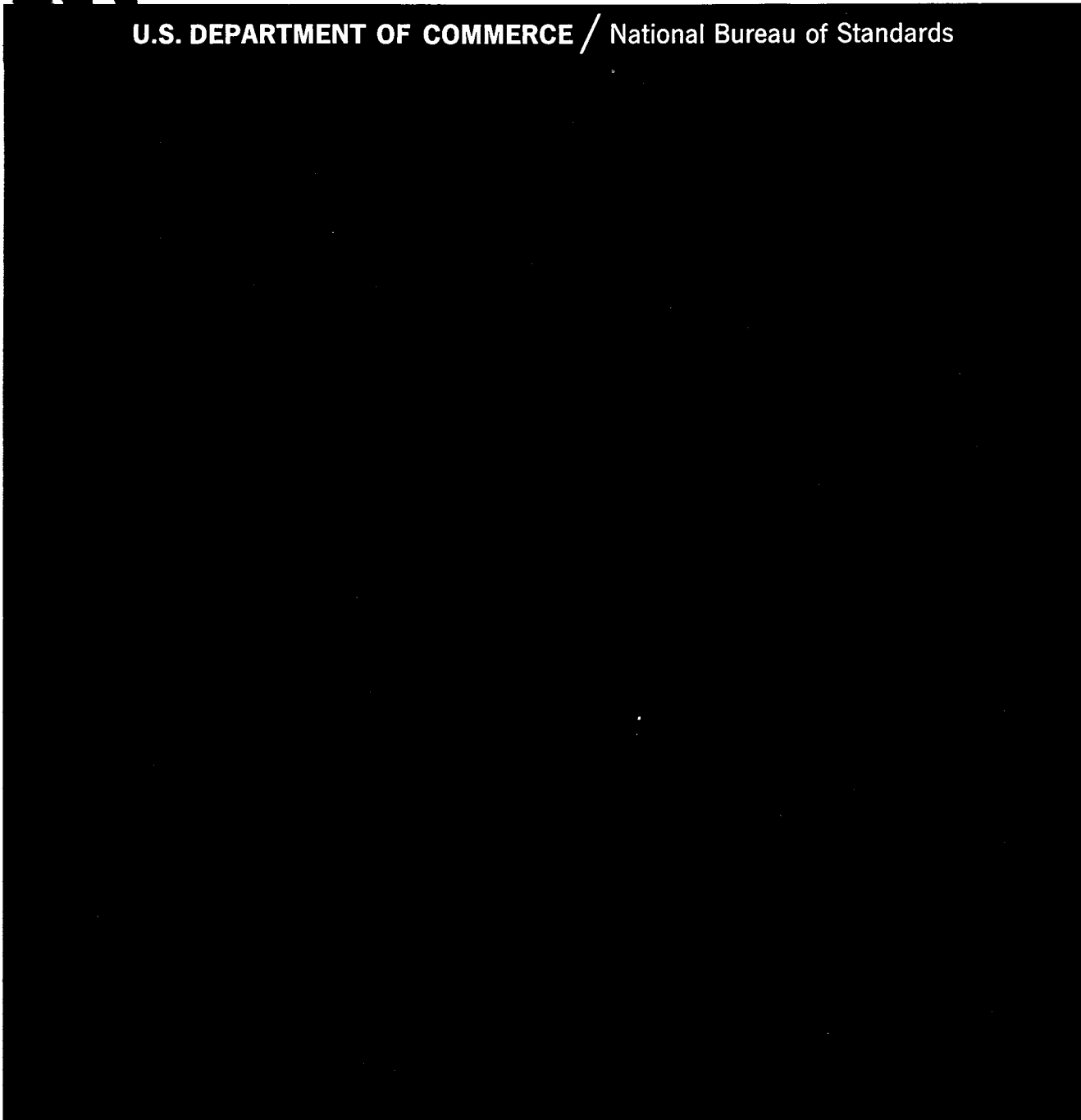


# Voluntary Product Standard

PS 63-75

**WITHDRAWN**

U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards







# Voluntary Product Standard

PS 63-75

U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

## LATEX FOAM MATTRESSES FOR HOSPITALS



American National  
Standards Institute

American National Standard Z 255.1-1975

## NATIONAL BUREAU OF STANDARDS

The National Bureau of Standards<sup>1</sup> was established by an act of Congress March 3, 1901. The Bureau's overall goal is to strengthen and advance the Nation's science and technology and facilitate their effective application for public benefit. To this end, the Bureau conducts research and provides: (1) a basis for the Nation's physical measurement system, (2) scientific and technological services for industry and government, (3) a technical basis for equity in trade, and (4) technical services to promote public safety. The Bureau consists of the Institute for Basic Standards, the Institute for Materials Research, the Institute for Applied Technology, the Institute for Computer Sciences and Technology, and the Office for Information Programs.

**THE INSTITUTE FOR BASIC STANDARDS** provides the central basis within the United States of a complete and consistent system of physical measurement; coordinates that system with measurement systems of other nations; and furnishes essential services leading to accurate and uniform physical measurements throughout the Nation's scientific community, industry, and commerce. The Institute consists of a Center for Radiation Research, an Office of Measurement Services and the following divisions:

Applied Mathematics — Electricity — Mechanics — Heat — Optical Physics — Nuclear Sciences<sup>2</sup> — Applied Radiation<sup>2</sup> — Quantum Electronics<sup>3</sup> — Electromagnetics<sup>3</sup> — Time and Frequency<sup>3</sup> — Laboratory Astrophysics<sup>3</sup> — Cryogenics<sup>3</sup>.

**THE INSTITUTE FOR MATERIALS RESEARCH** conducts materials research leading to improved methods of measurement, standards, and data on the properties of well-characterized materials needed by industry, commerce, educational institutions, and Government; provides advisory and research services to other Government agencies; and develops, produces, and distributes standard reference materials. The Institute consists of the Office of Standard Reference Materials and the following divisions:

Analytical Chemistry — Polymers — Metallurgy — Inorganic Materials — Reactor Radiation — Physical Chemistry.

**THE INSTITUTE FOR APPLIED TECHNOLOGY** provides technical services to promote the use of available technology and to facilitate technological innovation in industry and Government; cooperates with public and private organizations leading to the development of technological standards (including mandatory safety standards), codes and methods of test; and provides technical advice and services to Government agencies upon request. The Institute consists of a Center for Building Technology and the following divisions and offices:

Engineering and Product Standards — Weights and Measures — Invention and Innovation — Product Evaluation Technology — Electronic Technology — Technical Analysis — Measurement Engineering — Structures, Materials, and Life Safety<sup>4</sup> — Building Environment<sup>4</sup> — Technical Evaluation and Application<sup>4</sup> — Fire Technology.

**THE INSTITUTE FOR COMPUTER SCIENCES AND TECHNOLOGY** conducts research and provides technical services designed to aid Government agencies in improving cost effectiveness in the conduct of their programs through the selection, acquisition, and effective utilization of automatic data processing equipment; and serves as the principal focus within the executive branch for the development of Federal standards for automatic data processing equipment, techniques, and computer languages. The Institute consists of the following divisions:

Computer Services — Systems and Software — Computer Systems Engineering — Information Technology.

**THE OFFICE FOR INFORMATION PROGRAMS** promotes optimum dissemination and accessibility of scientific information generated within NBS and other agencies of the Federal Government; promotes the development of the National Standard Reference Data System and a system of information analysis centers dealing with the broader aspects of the National Measurement System; provides appropriate services to ensure that the NBS staff has optimum accessibility to the scientific information of the world. The Office consists of the following organizational units:

Office of Standard Reference Data — Office of Information Activities — Office of Technical Publications — Library — Office of International Relations.

<sup>1</sup> Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D.C. 20234.

<sup>2</sup> Part of the Center for Radiation Research.

<sup>3</sup> Located at Boulder, Colorado 80302.

<sup>4</sup> Part of the Center for Building Technology.

## **Voluntary Product Standard PS 63-75,**

### **Latex Foam Mattresses for Hospitals**

Approved by the American National Standards Institute on  
February 3, 1975, as American National Standard Z255.1-1975

#### **Abstract**

The purpose of this Voluntary Product Standard is to establish nationally recognized dimensional and quality requirements for latex foam mattresses intended for use in hospitals, and to provide producers, distributors, and users with a basis for common understanding of the characteristics of this product.

**Key words:** Foam mattresses; hospital mattresses; latex; latex foam mattresses; latex foam for hospitals; mattresses.

Nat. Bur. Stand. (S.U.), Prod. Stand. 63-75, 8 pages (April 1975)  
CODEN: XNPSAX



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# VOLUNTARY PRODUCT STANDARDS

*Voluntary Product Standards* are developed under procedures published by the Department of Commerce in Part 10, Title 15, of the Code of Federal Regulations. The purpose of the standards is to establish nationally recognized requirements for products, and to provide all concerned interests with a basis for common understanding of the characteristics of the products. The National Bureau of Standards administers the *Voluntary Product Standards* program as a supplement to the activities of the private sector standardizing organizations.

## Establishment of a VOLUNTARY PRODUCT STANDARD

The role of the National Bureau of Standards in the establishment of a Voluntary Product Standard is to (1) act as an unbiased coordinator in the development of the standard, (2) provide editorial assistance in the preparation of the standard, (3) supply such assistance and review as is required to assure the technical soundness of the standard, (4) seek satisfactory adjustment of valid points of disagreement, (5) determine the compliance with the criteria of the Department's procedures, (6) provide secretarial functions for each committee appointed under the Department's procedures, and (7) publish the standard as a public document.

Producers, distributors, users, consumers, and other interested groups contribute to the establishment of a *Voluntary Product Standard* by (1) initiating and participating in the development of the standard, (2) providing technical or other related counsel as appropriate relating to the standard, (3) promoting the use of and support for the standard, and (4) assisting in keeping the standard current with respect to advancing technology and marketing practices.

## Use of a VOLUNTARY PRODUCT STANDARD

The use of a *Voluntary Product Standard* is voluntary; the National Bureau of Standards has no regulatory power in the enforcement of the provisions of the standards. However, since the standards represent a consensus of all interested groups, their provisions are likely to become established as trade customs. In addition, when a standard is made a part of a legal document, such as a sales contract or code, compliance with the standard is enforceable.

The benefits derived from *Voluntary Product Standards* are in direct proportion to their general recognition and actual use. Producers and distributors whose products meet the requirements of a *Voluntary Product Standard* may refer to the standard in advertising and on labels to promote greater public understanding of or confidence in their products. Purchasers may order products conforming to the requirements of the standards.

For copies of the *Voluntary Product Standards* procedures or for more information concerning the development and use of these standards you may write to: Standards Development Services Section, National Bureau of Standards, Washington, D.C. 20234.

# Latex Foam Mattresses for Hospitals

Effective February 3, 1975 (See section 6.)

(This Standard, initiated by the Rubber Manufacturers Association, has been developed under the *Procedures for the Development of Voluntary Product Standards*, published by the U.S. Department of Commerce, as a revision of Commercial Standard CS 182-51, *Latex Foam Mattresses for Hospitals*.)

## 1. PURPOSE

The purpose of this Voluntary Product Standard is to establish nationally recognized dimensional and quality requirements for latex foam mattresses intended for use in hospitals, and to provide producers, distributors, and users with a basis for common understanding of the characteristics of this product.

## 2. SCOPE

This Voluntary Product Standard covers requirements and methods of test for the materials, dimensions, and construction of latex foam mattresses intended for use in hospitals. Methods for identifying products that conform to this Standard are provided. Information regarding the care of latex foam mattresses is given in Appendix A.

**Note:** As an aid in correlating U.S. customary units to metric units conversion factors for units used in this Standard are given in Appendix B.

## 3. REQUIREMENTS

**3.1. General**—All latex foam mattresses represented as complying with this Voluntary Product Standard shall meet all of the requirements specified herein. Later issues of publications referenced in this Standard may be used providing the requirements are applicable and consistent with the issue designated. Copies of standard FF4-72, *Standard for the Flammability of Mat-*

*tresses*,<sup>1</sup> or its successor, are available from the Consumer Product Safety Commission, Washington, DC 20207. Copies of Federal (FED) Standards and Specifications are obtained from Specification Sales (3FRDS), Building 197, Washington Navy Yard, General Services Administration, Washington, D.C. 20407. American Society for Testing and Materials (ASTM) publications are available from ASTM offices, 1916 Race Street, Philadelphia, Pa. 19103.

**3.2. Flammability**—Mattresses shall comply with the flammability requirements of FF4-72, which has been issued as a mandatory standard under authority of the Flammable Fabrics Act as amended in 1967.

### 3.3. Mattress cover

**3.3.1. Material**—The mattress cover shall be made of cloth coated with plastic at least on the exposed surface and shall have the properties shown in table 1 when tested as specified therein.

<sup>1</sup> All mattresses, including hospital mattresses, must meet FF4-72, amended June 8, 1973. It is recognized that additional flammability requirements such as those given in MIL-M-18351E, *Mattresses, Berth, Synthetic Sponge Rubber, Naval Shipboard* (available from Naval Publications and Forms Center, 580 Tabor Avenue, Philadelphia, Pa. 19120), may be desired and specified under certain conditions by some purchasers.



TABLE 1. *Properties and test methods for the mattress cover*

Property	Requirement	Test Method	Exceptions to referenced test methods
Breaking strength	115 lb in warp direction (min) 90 lb in fill direction (min)	ASTM D 751-73, <i>Standard Methods of Testing Coated Fabrics</i> , Sections 8 through 12	Speed of pulling clamp shall be $12 + \frac{1}{2}$ inch/min
Resistance to blocking	Blocking not more than slight	FED 191, Method 5872	
Adhesion of coating	4 lb per inch of width (min)	ASTM D 751-73, Sections 39-42	
Thickness of coating	0.004 inch on the exposed surface (min)	FED 601, Method 2011	The thickness determinations shall be made by comparing the cover thickness of identical spots before and after stripping the coating.
Hydrostatic resistance	No evidence of leaks at 15 lb/in <sup>2</sup>	ASTM D 751-73, Sections 30-34	Flex each specimen five times within one minute by applying and releasing a pressure of 15 psi. After the fifth flex, maintain the pressure at $15 \pm 1$ psi for five minutes.
Resistance to alcohol	No evidence of softening, tackiness, hardness, peeling, cracking, or other damage affecting serviceability.	FED 601, Method 6711	See 4.2 of this standard.
Resistance to phenol	Same as above requirement.	FED 601, Method 6711	See 4.3 of this standard.
Resistance to sterilization	Same as above requirement.	FED 601, Method 7411	See 4.4 of this standard.
Plasticizer loss	8 percent (max)	ASTM D 1203-67, <i>Standard Methods of Test for Loss of Plasticizer from Plastics (Activated Carbon Method)</i> , Method A	See 4.5 of this standard.
Resistance to mineral oil	No penetration	See 4.1 of this standard	

**3.3.2. Construction**—The mattress cover shall be constructed of top, bottom, and side panels. The mattress cover can either be removable or nonremovable as agreed upon between buyer and seller. If the cover is removable, it shall be designed so that it can be opened and closed using a fastener to allow for the removal of the insert. The top panel and bottom panel shall each be one continuous piece, and the side panel shall be either one continuous piece or two pieces. If the side panel is made from two pieces, the fastener shall be completely mounted in one of these pieces. The fastener shall be positioned in approximately the center of the vertical dimension of the side panel and shall open over at least one end plus one-half of the length of the mattress. The fastener shall meet the requirements for type 1, style 8, size LM, short tab pull, of FED-V-F-106d, *Fastener, Slide Interlocking*.

The cover may or may not have lifting straps as agreed upon between buyer and seller. If the cover has lifting straps, there shall be two lifting straps on one side (or both sides) approximately 36 inches apart and equidistant from the ends of the mattress. The straps shall be made of the same material as the cover; they shall be securely attached in a vertical position to the top and bottom of the finished mattress border at the seams.

**3.3.3. Dimensions**—The nominal length and width of the top, bottom, and side panels of the mattress cover shall be as agreed upon between buyer and seller. The tolerances on the nominal length and width of the top and bottom panels shall be plus or minus 0.5 inch on the length of the side panel and plus or minus 0.2 inch on the width of the side panel. The corners of the top

and bottom panels shall be square, or round with a radius not exceeding 3 inches. The dimensions, except for the length of the side panel, shall be measured from seam to seam by using a yardstick, metal tape, or any suitable measuring device. The part of the cover to be measured shall be laid smooth, without tension, on a horizontal surface. Length shall be measured parallel to the lengthwise direction, and width shall be measured in a line perpendicular to the lengthwise direction. The length of the side panel shall be the perimeter of the cover measured at the centerline whether the panel is constructed of a continuous piece or two pieces of fabric. In all cases other than the length of the side panel, the dimensions shall be the average of at least five different measurements uniformly distributed throughout the segment being measured.

### 3.3.4. Stitching

**3.3.4.1. Thread**—All thread shall have a minimum breaking strength of 3.0 pounds when tested in accordance with ASTM D 2256-69, *Standard Method of Test for Breaking Load (Strength) and Elongation of Yarn by Single-Strand Method*. Option 1A, which refers to straight, conditioned specimens, shall be used.

**3.3.4.2. Seams and stitching**—References to seams and stitching pertain to FED 751, *Stitches, Seams, and Stitching*. All stitching shall have a  $\frac{3}{8}$ -inch minimum seam allowance and 10 to 12 stitches per inch. The ends of all seams not caught in other seams or stitching shall be securely backstitched from  $\frac{7}{8}$  to 1 inch. Skipped stitches or thread breaks shall be repaired using the same type of stitch or same combination of stitches as the basic stitching. The fastener shall be sewn to the side panel using stitch type 301, seam type SSs-2. If the side panel contains two pieces they shall be joined together using stitch type 301, seam type SSa-1. The side panel shall be sewn to the top and bottom panels using a combination of stitch type 301 and either type 503 or 504, seam type SSa-2.

**3.3.4.3. Sewing (anchoring) tape**—In the case of a nonremovable cover, a sewing tape shall be adhered to the outer periphery of the latex foam insert, and the free (nonadhesive) portion of the sewing tape shall be sewn into the mattress binding tape when the top and side panels of the cover are sewn together; this will prevent the insert from slipping around inside the nonremovable cover.

TABLE 2. Properties and test methods for the mattress inserts

Property	Requirement	Test method	Exceptions to referenced test methods
Compression set	10 percent (max) loss of original height	ASTM D 1055-69, <i>Standard Specifications for Latex Foam Rubbers</i> , sections 17 through 19	The time of exposure shall be $22 \pm 0.2$ hours.
25 percent indentation load deflection (ILD value)	$30 \pm 6.0$ pounds for thicknesses up to and including 4 inches. $40 \pm 7.0$ pounds for thicknesses over 4 inches.	ASTM D 1055-69, sections 20 through 23	Two specimens shall be tested, one at the center of the insert, and one between 4 and 20 inches from either end of the insert on its center line. The specimen shall be compressed at any rate between 10 and 25 inches per minutes (between 4 and 10 mm/sec)
Change in 25 percent ILD value after aging	20 percent (max)	ASTM D 1055-69, sections 15 and 16	Specimen to be aged in accordance with ASTM D 573-67, <i>Standard Method of Test for Accelerated Aging of Vulcanized Rubber by the Oven Method</i> , for $22 \pm 0.2$ hours at temperature of $212 \pm 3.6$ °F ( $100 \pm 2$ °C)
Flexing endurance	5 percent (max) loss of original height, and 30 percent (max) decrease in 25 percent ILD value	ASTM D 1055-69, sections 24 through 26	

### 3.4. Mattress insert

**3.4.1. Material**—The mattress insert shall be made from rubber latex foam having interconnecting cells and shall have the properties shown in table 2 when tested as specified therein.

**3.4.2. Dimensions**—The dimensions of the insert shall be from 0.1 to 3.0 percent greater than the dimensions of the cover when tested in accordance with section 14 of the ASTM D 1055-69, *Standard Specifications for Latex Foam Rubbers*.

**3.4.3. Construction**—The insert shall consist of not more than three sections, except that a maximum of 1½ inches of the same material as the insert may be added to the length and to the width to adjust for size. All pieces of the insert shall be cemented together so that the joints cannot be felt through the mattress cover and so that they cannot be separated by hand except by tearing the latex foam. Core holes shall be not greater than 1½ inches in diameter, and in addition, if a core hole is greater than ¼ inch in diameter, the distance from any point on its circumference to the edge of the insert shall be not less than the diameter of that core hole.

**3.4.3.1. Surface defects**—Surface defects other than core holes shall be not greater than ½ inch in diameter or depth.

**3.4.3.2. Insert reinforcements**—(applicable only to removable covers) The inserts shall be reinforced along the entire circumference of their top and bottom edges with sheeting and adhesive or pressure sensitive tape. This reinforcement shall be 2 inches, plus or minus 5/32 inch, in width, when measured in accordance with sections 13 through 17 of ASTM D 1910-64 (Reapproved 1970), *Standard Methods of Test for Construction Characteristics of Woven Fabrics*. It shall be applied to the insert so that a minimum of ¾ inch is adhered to the top or bottom and the side of the insert. It shall not be possible to separate the reinforcement from the insert by hand, except by tearing the latex foam.

## 4. INSPECTION AND TEST PROCEDURES

**4.1. Resistance of the cover to mineral oil**—Place an 8- by 8-inch specimen, from the cover to be tested, exterior side up, on a wood frame having inside dimensions of 6 by 6 inches, 1 inch in depth. Force the specimen into the frame using a block approximately ¼ inch smaller than the frame in length and width, and rounded at the corners, to form a basin of uniform depth. Tack

the edges of the specimen to the frame and remove the block. Pour mineral oil into the basin to a depth of approximately ½ inch and allow it to remain there for 4 hours. The specimen should be examined for swelling or penetration to the back surface.

**4.2. Exceptions to Method 6711 when testing for resistance of the cover to alcohol**—The exceptions shall be as follows:

- (1) The immersion medium shall be a 70 percent solution of alcohol.
- (2) Specimens shall be taken in the warp and in the filling directions and shall be 8 by 4 inches.
- (3) The immersion time shall be 22 hours.
- (4) Twenty-four hours after the end of immersion, one specimen from both the warp and filling directions shall be folded in half, parallel to its width. The folded edge shall be rolled 10 times with a metal roller, under a load of 5 pounds.
- (5) The specimens shall be examined after immersion and after rolling.

**4.3. Exceptions to Method 6711 when testing for resistance of the cover to phenol**—The exceptions shall be those indicated in (2), (4), and (5) of 4.2.

**4.4. Exceptions to Method 7411 when testing for resistance of the cover to sterilization**—The exceptions shall be as follows:

- (1) The specimen shall be 12 inches square and shall be folded twice into a square 6 by 6 inches.
- (2) Twenty-four hours after the fifth period of sterilization, a piece 8 by 6 inches shall be cut from each direction of the specimen and tested for resistance to cracking as specified in (4) of 4.1.

**4.5. Exceptions to ASTM D 1203-67 (Method A), when testing plasticizer loss of the cover**—The exceptions shall be as follows:

- (1) The specimen shall be 2 by 2 inches.
- (2) The specimen shall be heated for 24 hours at a temperature of  $212 \pm 9$  °F ( $100 \pm 5$  °C).

## 5. IDENTIFICATION

In order that purchasers may identify products conforming to all requirements of this Voluntary Product Standard, producers and distributors may include a statement of compliance in

conjunction with their name and address on product labels, invoices, sales literature, and the like. The following statement is suggested when sufficient space is available:

This mattress conforms to the requirements established in Voluntary Product Standard PS 63-75, developed cooperatively with the industry and published by the National Bureau of Standards under the *Procedures for the Development of Voluntary Product Standards* of the U.S. Department of Commerce. Full responsibility for the conformance of this product to the standard is assumed by (name and address of producer or distributor).

The following abbreviated statement is suggested when available space on labels is insufficient for the full statement:

Conforms to PS 63-75, (name and address of producer or distributor).

#### 6. EFFECTIVE DATE

The effective date of this Voluntary Product Standard is the date upon which reference to the Standard may be made by producers, distributors, users and consumers, and other interested parties. Compliance by producers with all of the requirements of this Voluntary Product Standard may not actually occur until some time after its effective date. Products shall not be represented as conforming to this Voluntary Product Standard until such time as all requirements established in the Standard are met. The effective date of this Standard is February 3, 1975. After this date, products shall not be labeled as conforming to the superseded standard, CS 182-51.

#### 7. HISTORY OF PROJECT

Commercial Standard CS 182-51, *Latex Foam Mattresses for Hospitals*, was developed at the request of the Rubber Manufacturers Association and was published in 1951.

In 1962 the Rubber Manufacturers Association requested that the National Bureau of Standards initiate a revision of CS 182-51 under the *Procedures for the Development of Voluntary Product Standards*. The proposed standard was approved by the Standing Committee and circulated for acceptance in 1965. Because of a limited response to that circulation and a conflict over flammability requirements, the project to revise the standard was terminated in 1966.

In October 1968 the Rubber Manufacturers Association requested that another attempt be made to revise CS 182-51. On three occasions

during 1972 a tentative draft of the standard was sent to the Standing Committee for approval. The proposed standard was circulated for acceptance in 1972 and 1973 but failed to gain a consensus. Finally a new proposal was approved by the Standing Committee in August 1974. The new recommended standard was circulated for acceptance in September 1974. The response to this circulation showed that a consensus among producers; distributors, and users in accordance with the published procedures was attained.

The new edition of the standard was designated Voluntary Product Standard PS 63-75, *Latex Foam Mattresses for Hospitals*, and became effective February 3, 1975.

*Technical Standards Coordinator:*

George S. Chaconas,  
Standards Development Services Section,  
National Bureau of Standards  
Washington, D.C. 20234

#### 8. STANDING COMMITTEE

A Standing Committee has been appointed to assist in keeping this Voluntary Product Standard up to date. The names and members of the committee are available from the Standards Development Services Section, National Bureau of Standards, Washington, D.C. 20234, which serves as the secretariat of the committee.

#### APPENDIX A. Care of Latex Foam Mattresses

Latex foam is porous and should, therefore, be protected from contaminating liquids.

If it is necessary to remove the latex foam insert from the cover, it should be protected against prolonged exposure to direct sunlight, which will cause deterioration.

While the latex foam has sufficient tensile strength to withstand ordinary use, it can nevertheless be torn by mishandling. Therefore, some care must be taken whenever it is necessary to handle the insert, particularly when it is wet, to avoid mechanical damage.

When washing and drying the insert, the temperature of the water should be maintained at between 130 °F and 160 °F (54 °C and 71 °C) and the temperature of the dryer kept below 150 °F (65 °C).

The following materials are harmless to latex foam: ammonia water, borax, washing soda, soap solution, and synthetic detergents. Any other cleansing agents should be investigated thoroughly before using. Typical cleansing agents that are harmful include gasoline, carbon tetrachloride, bleaching solutions, and any acid material. Care must be taken so that copper and manganese-bearing materials do not come in contact with the latex foam insert.



For disinfection, the cover or insert may be sprayed, sponged, or soaked with a mild disinfectant. For sterilization, the cover or insert may be exposed to steam pressures up to 15 psi or to ethylene oxide gas under controlled conditions as recommended by the manufacturers of gas sterilization equipment.

#### APPENDIX B

The conversion factors and units contained in this appendix are in accordance with the International System of Units (abbreviated SI for Systeme International d'Unites). The SI was defined and given official status by the 11th Gen-

eral Conference on Weights and Measures which met in Paris in October 1960. For assistance in converting U.S. customary units to SI units, see ASTM E 380, *ASTM Standard Metric Practice Guide*, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103. The conversion factors for the units found in this Standard are as follows:

1 inch = 25.4 millimeters  
1 foot = 0.3048 meter  
1 pound (force) = 4.448 newtons  
1 pound per square inch = 6894.76 pascals  
(newtons per square meter)  
 $t_C = (t_F - 32)/1.8$   
where  $t_C$  = temperature in degrees Celsius  
where  $t_F$  = temperature in degrees Fahrenheit

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**NOTE:** At present the principal publication outlet for these data is the Journal of Physical and Chemical Reference Data (JPCRD) published quarterly for NBS by the American Chemical Society (ACS) and the American Institute of Physics (AIP). Subscriptions, reprints, and supplements available from ACS, 1155 Sixteenth St. N. W., Wash. D. C. 20056.

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**Voluntary Product Standards**—Developed under procedures published by the Department of Commerce in Part 10, Title 15, of the Code of Federal Regulations. The purpose of the standards is to establish nationally recognized requirements for products, and to provide all concerned interests with a basis for common understanding of the characteristics of the products. NBS administers this program as a supplement to the activities of the private sector standardizing organizations.

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